

What is claimed is;

1. An image display system comprising

an image data obtaining means which obtains image data  
consisting of three-dimensional pixel values representing an  
5 object,

a cross section designating means for designating an  
arbitrary cross section of the object,

a depth designating means for designating a depth  
perpendicular to the designated cross section,

10 a cross-section projected-image data generating means  
which generates, on the basis of the image data, cross-section  
projected-image data representing a cross-section  
projected-image obtained by projecting, onto a plane parallel  
to the designated cross section, averages of the pixel values  
15 arranged in the directions of depth in the region defined by  
the designated cross section and the designated depth  
including the designated cross section,

an image processing condition setting means which sets  
image processing conditions on the basis of the designated  
20 depth,

an image processing means which carries out image  
processing on the cross-section projected-image data on the  
basis of the image processing conditions set by the image  
processing condition setting means, and

25 a display means which displays an image on the basis of  
the cross-section projected-image data processed by the image

processing means.

2. An image display system as defined in Claim 1 in which said image processing condition setting means sets the image processing conditions on the basis of the kind of the object  
5 represented by the image data.

3. An image display system as defined in Claim 2 in which said image processing condition setting means sets the image processing conditions also on the basis of the purpose of observation of the cross-section projected-image.

10 4. An image display system as defined in Claim 3 in which the image data is three-dimensional CT data.

5. An image display system as defined in Claim 2 in which the image data is three-dimensional CT data.

6. An image display system as defined in Claim 1 in which  
15 said image processing condition setting means sets the image processing conditions on the basis of the purpose of observation of the cross-section projected-image.

7. An image display system as defined in Claim 6 in which the image data is three-dimensional CT data.

20 8. An image display system as defined in Claim 1 in which the image data is three-dimensional CT data.

9. An image display system as defined in Claim 1 in which the image data represents a medical image.

10. An image display system as defined in Claim 1 in  
25 which the image processing includes at least one of gradation processing for adjusting the density level or contrast of the

image and frequency processing for enhancing components in a particular frequency band.

11. An image display system comprising

an image data obtaining means which obtains image data  
5 consisting of three-dimensional pixel values representing an object,

a cross section designating means for designating an arbitrary cross section of the object,

a depth designating means for designating a depth  
10 perpendicular to the designated cross section,

a cross-section projected-image data generating means which generates, on the basis of the image data, cross-section projected-image data representing a cross-section projected-image obtained by projecting, onto a plane parallel  
15 to the designated cross section, averages of the pixel values arranged in the directions of depth in the region defined by the designated cross section and the designated depth including the designated cross section,

an image processing condition setting means which sets  
20 image processing conditions on the basis of analysis of the cross-section projected-image data,

an image processing means which carries out image processing on the cross-section projected-image data on the basis of the image processing conditions set by the image  
25 processing condition setting means, and

a display means which displays an image on the basis of

the cross-section projected-image data processed by the image processing means.

12. An image display system as defined in Claim 11 in which said image processing condition setting means sets the  
5 image processing conditions on the basis of the kind of the object represented by the image data.

13. An image display system as defined in Claim 12 in which said image processing condition setting means sets the image processing conditions also on the basis of the purpose  
10 of observation of the cross-section projected-image.

14. An image display system as defined in Claim 13 in which the image data is three-dimensional CT data.

15. An image display system as defined in Claim 12 in which the image data is three-dimensional CT data.

15 16. An image display system as defined in Claim 11 in which said image processing condition setting means sets the image processing conditions on the basis of the purpose of observation of the cross-section projected-image.

17. An image display system as defined in Claim 16 in  
20 which the image data is three-dimensional CT data.

18. An image display system as defined in Claim 11 in which the image data is three-dimensional CT data.

19. An image display system as defined in Claim 11 in which the image data represents a medical image.

25 20. An image display system as defined in Claim 11 in which the image processing includes at least one of gradation

processing for adjusting the density level or contrast of the image and frequency processing for enhancing components in a particular frequency band.